UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,335	06/30/2003	Haru Ando	500.42880X00	8770

24956 7590 01/17/2008

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER	
FRISBY, KESHA	

ART UNIT	PAPER NUMBER
3714	

MAIL DATE	DELIVERY MODE
01/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

HH

Office Action Summary	Application No.	Applicant(s)	
	10/608,335	ANDO ET AL.	
	Examiner	Art Unit	
	Kesha Frisby	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,7 and 9-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,7 and 9-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/2007 has been entered.

Status of Claims

After the amendment filed on 4/17/2007, claims 1, 3, 7, 9-15 are pending. Claims 14 & 15 are newly added.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 3, 7, 9-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The applicant now recites where judging a degree of concentration uses analyzed rate of change in hemoglobin concentration at a corresponding time and said attention information. The examiner is able to find in Fig. 6 hemoglobin concentration at

a corresponding time. The original filed specification and drawings do not disclose any working examples and/or graphs disclosing judging a degree of concentration using analyzed rate of change in hemoglobin concentration at a corresponding time and said attention information. Without this disclosure, one skilled in the art cannot practice the invention without undue experimentation because of not knowing how a degree of concentration is determined by time and attention information.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1, 3, 7, 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atsushi (Publication Number 09-149894: English Computer Translation from the Patent of Abstracts of Japan) in view of Zaltman (U.S. Patent Number 6,315,569).**

Referring to claim 1, Atsushi discloses starting up a learning program in said information processing apparatus (abstract: problem to be solved); continuously acquiring, as said learning program progresses, measurement information of a blood flow rate in a brain a user of said information processing apparatus, said measurement information being

obtained from near infrared measuring device through information acquiring means (abstract & Drawings 1-3 & 6 & associated text); acquiring input information and operation information given by said user to said information processing apparatus through input means, wherein the input information and the operation information indicate progress of said learning program (optical brain function measurement device 17 is inputted to an arithmetic unit 21 & Field of Invention). *Atsushi does not teach acquiring audio or video information said of said information processing apparatus through at least one of a microphone and camera connected to said information processing apparatus; and judging a degree of concentration of said user to said learning program using said measurement information of said blood flow rate and said attention information and displaying said degree of concentration of the user and said attention information of the user with said progress of said learning program.* However, Zaltman teaches acquiring audio or video information said of said information processing apparatus through at least one of a microphone and camera connected to said information processing apparatus (Fig. 1 & column 6 lines 54-59 & column 7 lines 20-22) and judging a degree of concentration of said user to said learning program using said measurement information of said blood flow rate (column 11 lines 41-58) and said attention information (column 11 lines 41-44) and displaying said degree of concentration of the user and said attention information of the user with said progress of said learning program (display 100). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include acquiring audio or video information, judging and displaying a degree of concentration using said measurement

information of said blood flow rate and attention information, as disclosed by Zaltman, incorporated into Atsushi/Ho et al. in order record user's verbal comments, to provide a means of measuring the relative processing contribution of each subregion to the task and for displaying data.

6. Claims 3, 7 & 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atsushi (Publication Number 09-149894: English Computer Translation from the Patent of Abstracts of Japan) in view of Ho et al. (U.S. Patent Number 5,944,530) and Fumio (Publication Number 09-149894: English Computer Translation from the Patent of Abstracts of Japan).

Referring to claim 3, Atsushi discloses acquiring concurrently, through input means, information contents executed in a connected terminal (abstract), information of a blood flow rate in a brain of a user of said terminal (abstract & Drawings 1 & 6 & associated text); analyzing rate change hemoglobin concentration from said blood flow rate (for example, paragraph 0006: hemoglobin concentration change). *Atsushi does not disclose acquiring concurrently operation information and input information given said user to said terminal, acquiring audio or video information said of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and camera connected to said terminal; and judging a degree of concentration of said user on said information of contents, and displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents.* However, Ho et al. teaches acquiring concurrently operation information and input information given said user to said terminal (column 3

lines 28-31 & column 7 lines 23-25), audio or video information said of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and camera (digital camera 180) connected to said terminal (Fig. 2B) and judging a degree of concentration of said user to said information of content using said attention information (column 10 line 22 – column 11 line 8). *Atsushi/Ho et al. does not teach displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents.* However, Fumio teaches displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents (image display device 13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include acquiring audio or video information, judging and displaying a degree of concentration using said measurement information of said blood flow rate and attention information, as disclosed by Fumio, incorporated into Atsushi/Ho et al. in order to display the data.

Referring to claim 7, Atsushi, as modified by Ho et al. and Fumio, teaches giving notice to said user of said terminal in accordance with a result of said step of judging said degree of concentration (column 10 line 66-column 11 line 56 and more specific column 11 lines 34-47 of Ho et al.).

Referring to claims 9 & 10, Atsushi, as modified by Ho et al. and Fumio, teaches further comprising a step of judging whether said input information is a correct answer to an exercise included in said learning contents or not is further provided (column 12 lines 17-30 of Ho et al.); and wherein said step of judging a degree of concentration also

uses a result of the step of judging whether said input information is a correct answer (column 10 lines 23-25 & column 12 lines 31 & 32: the examiner views this limitation as whether the concentration degree ranges from low, medium to high of Ho et al.). Referring to claims 11 & 12, Atsushi, as modified by Ho et al. and Fumio, teaches displaying, on a display, information of said learning contents (monitor 178), said rate of correct answers for each exercise included in said learning contents (column 11 lines 6-8 of Ho et al.), said rate of correct answers being obtained from the result of the step of judging whether said input information is a correct answer (column 11 lines 6-8 of Ho et al.).

7. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atsushi in view of Ho et al. and Freer (U.S. Patent Number 6,402,520).

Referring to claim 13, Atsushi discloses a near infrared measuring device (measurement device 17), terminal connected said near infrared measuring device (external device 23) for measuring a blood flow rate in a brain of a user of said terminal (abstract); wherein said terminal includes: means for continuously acquiring measurement information from said infrared measuring device (abstract & Drawings 1-3 & 6 & associated text); display for displaying said contents information received from said server (it is inherent that a computer has a display); input means for accepting input instructions and operation instructions for said displayed contents information, input means for accepting input instructions and operation instructions for said displayed contents information, wherein the input instructions and operation instructions indicate progress of a user's learning of the contents information (Constitution, Drawing

1 & the associated text); wherein said server further includes; a storage for storing inputs from said input means, said measurement information from said near infrared measuring device, said acquired audio or video information as attention information of the user, and said displayed contents information at corresponding times in association with one another (storage 22). *Atsushi does not disclose a server connected to said terminal through a network, wherein said server includes a recording means for recording contents information and means for acquiring audio or video information of said user so as to obtain user's attention information, means for judging a degree of concentration of the user on the contents information, based on said measurement information from said near infrared measuring device; and means for displaying to said display said degree of concentration of the user and said attention information of the user with corresponding time of the contents.* However, Ho et al. teaches a server (server computer 152) connected to said terminal (column 3 lines 16-20) through a network (column 3 lines 33-35 & network 120), wherein said server includes a recording means for recording contents information (column 3 lines 49-53) and (column 3 lines 28-31 & column 7 lines 23-25) and means for acquiring audio or video information of said user so as to obtain user's attention information (digital camera 180). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include acquiring information, as disclosed by Ho et al., incorporated into Atsushi in order to monitor student inputs and take numerous images of the student's face in order to determine whether the student is attentive. *Atsushi/Ho et al. does not disclose means for judging a degree of concentration of the user on the contents information,*

based on said measurement information from said near infrared measuring device; and means for displaying to said display said degree of concentration of the user and said attention information of the user with corresponding time of the contents. However, Freer teaches means for judging a degree of concentration of the user on the contents information, based on said measurement information from said near infrared measuring device and said attention information (column 6 lines 37-45); and means for displaying to said display said degree of concentration of the user and said attention information of the user with corresponding time of the contents (column 4 lines 11-15: visual output device in the form of a display 38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include judging a degree of concentration and displaying, as disclosed by Freer, incorporated into Atsushi/Ho et al. in order to determine whether the student is attentive and to display data.

Referring to claim 14, Atsushi, as modified by Ho et al. and Fumio, teaches wherein said video information of the user is acquired as facial information or head behavior information of the user, and said camera judges as to whether the user is present in front of the screen or not, the direction of the head of the user, and expression of the user (column 9 lines 13-35 of Ho et al.).

3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atsushi/Ho et al./Freer and further in view of Shpiro (U.S. Publication Number 2002/0150869).

Referring to claim 15, Atsushi/Ho et al./Freer discloses a learning condition judging program according to claim 1. *Atsushi/Ho et al./Freer does not disclose wherein said*

audio information of the user is acquired as text information which is extracted from voice of the user through said microphone. However, Shpiro teaches wherein said audio information of the user is acquired as text information which is extracted from voice of the user through said microphone (paragraph 0040). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a microphone, as disclosed by Shpiro, incorporated into Atsushi/Ho et al./Freer in order to display what the user is saying on the screen.

Response to Arguments

11. Applicant's arguments filed 8/30/2006 have been fully considered but they are not persuasive. In reference to the applicant's argument, "there is no teaching or suggestion in Atsushi of the learning condition judging program executable in an information processing apparatus and system for judging a learning condition" (pages 10 & 13). This is a preamble limitation were there is no recitation in the body of the claims of any structure, thus the body does not "breathe life" into the preamble of the claim. In addition, the applicant argues that Atsushi teaches away from using conventional input means, such as; a keyboard or mouse is true. However, the argument is not persuasive because Atsushi uses electrodes attached to the head of a user to acquire input and operation information. The applicant claims input means, however, does not claim what type of input means are included or not included. Therefore, the Atsushi reference disclosing input means is a valid rejection. In addition, to the applicants teaching away argument, since the prior art's disclosure does not criticize, discredit or otherwise discourage the solution claimed this prior does not teach away. (See MPEP 2145) One

of ordinary skill in the art did not combine the use of conventional input means with the teachings of Atsushi. The references were combined in order to teach acquiring audio or video information. Further, Atsushi was used to disclose the acquiring input information and operation information. The way this information was acquired was not through conventional input means, this information was acquired by an optical brain function measurement device 17. See rejection above. In conclusion, the applicant argues that the Atsushi reference teaches away form the present invention. However, the applicant recites the argument of it is improper to combine references where the references teach away from their combination. The Atsushi reference does not teach away from the combination because the Atsushi reference is not being combined with the other prior art references for the purpose of input means. The Atsushi reference was for one reason combined to teach acquiring audio or video information. This limitation has nothing to do with the input means claimed prior. Therefore the Atsushi reference does not teach away from the combination.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kesha Frisby whose telephone number is 571-272-8774. The examiner can normally be reached on Mon. - Wed. 7-3pm & Thurs. - Fri. 7-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ronald Laneau
Primary Patent Examiner
Art Unit 3714
1/15/08

Kyf
Kyf 1/11/2008